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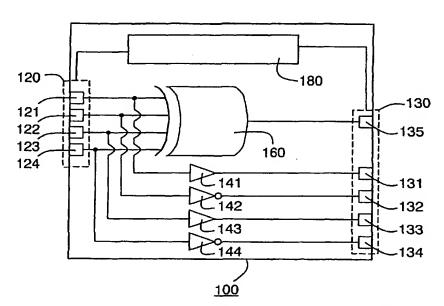
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[Continued on next page]

#### (54) Title: ELECTRONIC CIRCUIT WITH TEST UNIT



(57) Abstract: A test arrangement for testing the interconnections of an electronic circuit (100) and a further electronic circuit is provided. A first selection of I/O nodes (120), which are arranged to receive input data in a functional mode of the electronic circuit (100), and which are coupled to a test unit in a test mode of the electronic circuit (100). The test unit has a combinatorial circuit (160) for implementing a multiple-input XOR or XNOR gate. The test unit also provides interconnections between the first selection of I/O nodes (120) and a second selection of I/O nodes (130) via logic gates (141-144). These interconnections increase the interconnect test coverage of the electronic device (100), because the interconnects with the further electronic circuits that are associated with I/O nodes (131-134) become testable as well.



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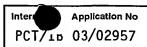
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## INTERNATIONAL SEARCH REPORT





A. CLASSIFICATION OF SUBJECT MATTER IPC 7 G01R31/3185 G01R31/316

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#### B. FIELDS SEARCHED

 $\label{lem:minimum} \begin{array}{ll} \mbox{Minimum documentation searched (classification system followed by classification symbols)} \\ \mbox{IPC 7} & \mbox{G01R} \end{array}$ 

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

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X	WO 99 39218 A (MURIS MATHIAS N M; RAAYMAKERS ROBERTUS M W (NL); JONG FRANCISCUS G) 5 August 1999 (1999-08-05) page 12 -page 16; figures 1,3,4 & EP 0 979 418 A (KONINKL PHILIPS ELECTRONICS NV) 16 February 2000 (2000-02-16) cited in the application/	1,2,4-8

X Further documents are listed in the continuation of box C.	X Patent family members are listed in annex.
Special categories of cited documents:      A' document defining the general state of the art which is not considered to be of particular relevance      E' earlier document but published on or after the international filling date      L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)      O' document referring to an oral disclosure, use, exhibition or other means      P' document published prior to the international filling date but later than the priority date claimed	<ul> <li>"T" later document published after the international filing date or priority date and not in conflict with the application but clied to understand the principle or theory underlying the invention</li> <li>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</li> <li>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</li> <li>"&amp;" document member of the same patent family</li> </ul>
Bale of the actual completion of the international search  8 January 2004	Date of malling of the International search report  16/01/2004
Name and malling address of the ISA  European Palent Office, P.B. 5818 Patentlaan 2  NL - 2280 HV Rijswljk  Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  Fax: (+31-70) 340-3016	Authorized officer Hijazi, A





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